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Volume XVI JUNE 1955 Number 6

DISEASES OF THE NERVOUS SYSTEM

A PRACTICAL JOURNAL ON PSYCHIATRY AND NEUROLOGY

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DISEASES of the NERVOUS SYSTEM

A PRACTICAL JOURNAL ON PSYCHIATRY AND NEUROLOGY

Psychosomatic Investigations of Cerebral Arteriosclerosis With Psychosis

E. ADAMS DANEMAN, M.D., GEORGE CHORNESKY, M.D., and
JAMES A. HAYCOX, M.D.
Worcester, Massachusetts

There has been general concern with the pathology and pharmacologic therapy of cerebral arteriosclerosis,[1] and a more special interest when this condition is accompanied by a psychotic reaction. This situation has led the present investigators to evaluate various pharmacologic and physiologic agents in the treatment of this disease process. A standard investigative method has been devised which permits evaluation of a number of agents. It makes use of serial electroencephalograms, memory testing, electrocardiograms and careful observations of activity and behavior. To date, nicotinic acid, carbon dioxide and cortisone have been investigated as to their therapeutic efficacy. This first communication deals with the use of nicotinic acid, and outlines the method in some detail.

I. Nicotinic Acid

Method

Twenty-one male patients were chosen at random from cases of cerebral arteriosclerosis with psychosis, resident at the Worcester State Hospital. The diagnosis was based upon the presence of a chronic brain syndrome, characterized by memory loss, and clouding of the sensorium, coupled with variability and irritability. Headaches, dizzy spells and the presence of arteriosclerosis extra-cranially were also taken into account. The retinae were examined fundoscopically for the presence of arteriosclerotic retinopathy. The patients ranged in age from 64 to 92 years, averaging 75.1 years of age.

An initial physiological survey of one-month duration entailed repeated EEG's and ECG's, in addition to a standard physical examination done with special emphasis on the neurological aspects. The patients' sensoria were examined repeatedly in the premedication period to establish a measurable base line as an expression of the psychological aspect of cerebral function. Laboratory studies, including complete blood counts, blood nonprotein nitrogen values, and blood sugar determinations, as well as urine analyses, were done to exclude certain medical conditions which might have had misleading effects on the results of this study. No other effort was made to exclude any patient with cerebral arteriosclerosis, regardless of age, duration of illness, or physical or mental status, providing that the patient was cooperative enough to allow us to make the necessary observations repeatedly.

An attempt was made to sort the patients into two comparable groups as to the findings of the survey. Factors taken into account were age, duration of illness, physical status, electrocardiographic status, and mental status. An arbitrary scale ranging from zero to 100 was set up for each of the criteria in the initial survey. The lower the score the closer the patients approached nor-

From the Clinical and Research Services of the Worcester State Hospital, David Rothschild, M.D., Clinical Director.

mality. In this way a person with a normal ECG would receive a score of zero. A patient with a disturbed ECG received a score closer to 100. An average was taken of all the readings obtained on each patient and the result was a number roughly indicative of the patient's physical health.

Duration of illness was more difficult to determine. It was felt that the first indication of memory loss would be a simple, if somewhat crude, dividing point. It was found that the patients varied in the duration of their illnesses from three months to 20 years.

In the evaluation of their physical status the patients were categorized as to whether they were ill or in relatively good physical health.

The ECG's, done at one-week intervals, were studied for abnormality. Strain patterns, infarctions, ischaemia, and heart block were taken into account, and patients were separated according to the relative severity of the ECG findings.

Repeated EEG's were obtained. First, the records were scanned for abnormalities and focal pattrns. Second, the individual waves of the tracings were measured for frequency, and the lead containing the greatest number of measurable waves was studied in each case. This was usually the occipital lead, but varied between individuals. In counting the waves present in a one-second interval, one slow wave and several faster waves may total, say 10—giving the impression that the rhythm is the normal alpha rhythm at 10 per second—it was thought that a more refined method should be devised to find the various frequencies present in each record. After some study it was found that counting the individual waves of the EEG as devised by Kaufman and Hoagland[12,14] met this need. It was felt that this method, rather than the one suggested by Engel et al. (which measured the number of waves per second[4]), would give a more sensitive indication of the various frequencies present at one time in an individual record. A transparent grid was designed with separate scales of one-second duration for each frequency between three and 16 per second. The separate scales were divided into fractions, so that each wave might be measured visually. A table was made of how many waves were present at each countable frequency. This information was converted into the percentage of time for each frequency. At least one minute of the record was counted in each case. One minute of a record, with a peak frequency of 10 per second, would thus contain about 600 waves.

The information thus obtained was converted into a graph in which the ordinant was the percentage of each frequency present in terms of time. The abscissa became the frequency of the EEG in cycles per second. These graphs showed a peak frequency about which a distribution of slower and faster waves was seen. This method of counting and graphing the EEG's is illustrated in Figure 1, one of the actual cases so studied. Here the use of the transparent grid is shown with a detail of the reading of actual waves. The computation and the method of arriving at the peak frequency is seen. The final step is the conversion of the information in the table to the graph as illustrated.

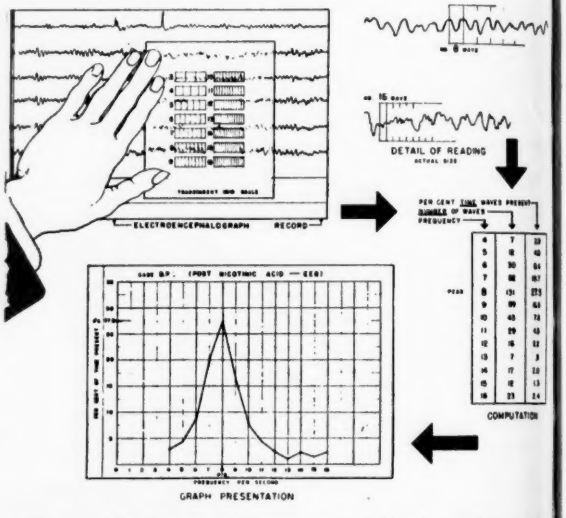


Fig. 1. Method of frequency analysis and graphic presentation.

Shifts in the peak and median frequencies offered ready tools to study changes which occurred in EEG's of patients during various therapeutic courses.[14] They were found to vary under physiological stresses, and with different pharmacological agents.

In dealing with consecutive determinations of memory, it was necessary to have a test

of memory function which could be readily administered, was thoroughly standardized, and was easily graded by arbitrary scoring methods. It was found that such a test exists in the Worcester Wells Memory Scale[20] which measures remote and recent memory and the differences between them—a distinction of diagnostic significance in organic syndromes. It was found that the "new memory" section was more sensitive. The "old memory" section did not correlate with our other findings and was therefore discarded.

"New memory" in the Worcester Wells Memory Scale involves five categories. A series of sentences of increasing complexity and length are read to the patient, who attempts to repeat them. He is then asked to reverse serial digits of increasing length. "Digits forward" involves repeating another series of digits in the same order as given. The final section in "new memory" consists of a two paragraph story containing 45 "memories." Alternate stories are available, of similar length and scope, to preclude learned responses on subsequent examinations.

The same test, with and without alternate stories, was administered to the patients weekly during the control, initial survey, during the actual experiment, and for a month after the therapeutic trial. There was no significant increase in the score which might possibly have been due to learning through repetition.

On the basis of this survey, patients were divided into two groups matched in terms of major variables.

In Chart One the average age of the control group was 73.1; that of the group to receive nicotinic acid, 77.1. The duration of illness in years for the control group was 6.8; that of the group to receive medication, 6.4. On the arbitrary scale of zero to 100, the relative degree of physical health was 43 for the control group and 42 for the group to receive nicotinic acid.

After dividing the patients into two matched groups they received 50 mg. tablets of nicotinic acid five times a day for one month. The control group received five tablets of sodium bicarbonate daily. At no time did the investigators know which medication was being given to what patient. Which patients constituted each group was also kept from the experimenters. Only after the experiment was complete and all the data gathered was such information made available. After the therapeutic course a repeated one-month's survey was made, identical to the initial survey.

CHART ONE
STATISTICAL FINDINGS

INITIAL SURVEY FINDINGS

	NICOTINIC ACID GROUP	PLACEBO GROUP
MEAN AGE	77.1	73.1
DURATION OF ILLNESS (YEARS)	6.4	6.8
SCORING OF DEGREE OF MEDICAL HEALTH	42.	43.

EXPERIMENTAL FINDINGS

EEG IN CYCLES PER SECOND

	NICOTINIC ACID GROUP			PLACEBO GROUP		
	BEFORE	DURING	AFTER	BEFORE	DURING	AFTER
MEAN OF MEDIAN FREQUENCY OF GROUP	8.373 σ±.439	7.918 σ±1.100	8.143 σ±.958	7.575 σ±1.195	7.485 σ±1.367	7.551 σ±1.354
CHANGE ON MEDICATION	−.455 ←			−.090 ←		
CHANGE AFTER MEDICATION	+.225			+.066		

MEMORY SCORE ON NEW RECALL SECTION OF WORCESTER-WELLS SCALE

	NICOTINIC ACID GROUP			PLACEBO GROUP		
	BEFORE	DURING	AFTER	BEFORE	DURING	AFTER
MEAN SCORE OF GROUP	12.583	11.083	14.250	10.188	10.438	13.375
CHANGE ON MEDICATION	−1.500 ←			+0.250 ←		
CHANGE AFTER MEDICATION	+3.167			+2.937		

EKG

	NICOTINIC ACID GROUP		PLACEBO GROUP	
	BEFORE	DURING & AFTER	BEFORE	DURING & AFTER
MYOCARDIAL INFARCTS	5	4 ←	5	2 ←
" " ISCHAEMA	7	6	5	6
"STRAIN" PATTERNS	3	0	4	1
AURICULAR FIBRILLATION	1	1 ←	1	0 ←

BEHAVIOR ADJUSTMENT TO WARD AND FELLOW PATIENTS

ON MEDICATION	NICOTINIC ACID GROUP	PLACEBO GROUP
BETTER	2	2
UNCHANGED	7	7
WORSE	1	1

Findings

Early in the course of the experiment the investigators were impressed with the high degree of morbidity which accompanied the arteriosclerotic state. Scarcely a single patient of the group escaped at least one period on the acute medical service. Of the 21, one had died before we could complete the initial survey; three had failed to the point where investigation was deemed inadvisable. There was a close relationship between cerebral and coronary arteriosclerosis in this group. Only one normal ECG was found in the 21 patients. In the initial survey 10 myocardial infarcts, two cases of

auricular fibrillation, four bundle branch blocks, one nodal and one idioventricular rhythm, were found. There were six severe "strain patterns," one case of trigeminy, and 12 of coronary insufficiency with myocardial ischaemia. There were three cases of numerous and multifocal extra systole.

During the therapeutic trial, which involved repeated ECG's, no improvement in any of these conditions was seen, and many new ECG abnormalities were found. Changes for the worse in the ECG's appeared more prominent in the group receiving nicotinic acid. Referring to Chart One, it is seen that four of the six new myocardial infarcts occurred in the group receiving nicotinic acid. The one new case of auricular fibrillation was also among the nicotinic acid group.

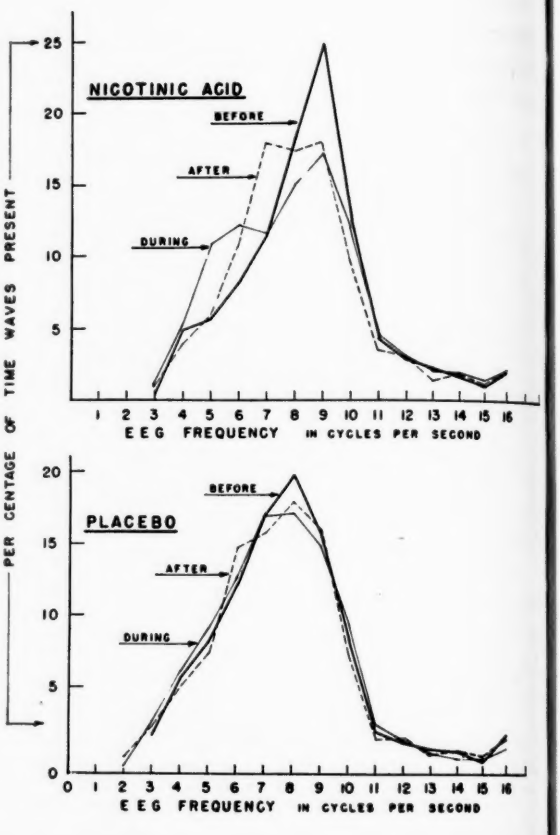
In studying the EEG's on these patients, 14 cases were able to complete repeated examinations. Seven cases were too ill at tims to have the EEG's done and were eliminated. Of the remaining 14 cases, six were on nicotinic acid and eight on the placebo.

Changes in the EEG median for the worse occurred on nicotinic acid. These changes represented a definite worsening of the EEG frequency, lower rates being observed. Referring again to Chart One, it is seen that on nicotinic acid there was a drop of nearly half a cycle in EEG frequency. On the placebo the drop was less than one-tenth of a cycle. It is seen that while there was a slight decline in frequency on the placebo, the change for the worse on nicotinic acid of four times that on the placebo. After the therapeutic course patients who had received nicotinic acid showed a change for the better, toward the frequency obtained prior to medication. Similarly, there was a slight improvement in the placebo group, but this change was less than one-third of that observed in the group which had been given nicotinic acid. These EEG changes suggest that nicotinic acid interfered with brain physiology as measured by the EEG, causing a slowing to more pathological frequencies than were seen prior to the therapeutic trial.

Chart Two represents the mean values of the nicotinic acid and placebo groups in respect to the EEG. The EEG's of the placebo group showed little change compared to the group receiving nicotinic acid. The nicotinic acid group showed a definite deterioration of the EEG function during treatment, and a reversion toward more normal alpha frequency after treatment was over. Statistical evaluations of the data have been undertaken and the results are highly significant.

CHART TWO

MEAN EEG RESPONSE OF NICOTINIC ACID AND PLACEBO GROUPS AT EACH FREQUENCY



The repeated memory testing on these patients was studied as to the changes in the "new memory" section.

The mean scores of the group receiving nicotinic acid were lower than during the period preceding medication. After medication, the nicotinic group showed a recovery toward pretreatment level. The data on Chart One show that while the placebo patients showed slight improvement of memory during the therapeutic trial, there was a significant drop in memory during treatment with nicotinic acid. The memory scores indicate a trend in the same direction as that

observed in the EEG, namely, a distinct worsening of brain function on nicotinic acid therapy.

Careful nursing notes as to patients' ward behavior were kept. Analysis of their behavior revealed a striking lack of difference between patients receiving nicotinic acid and those receiving placebo. Referring again to Chart One, it is seen that, of the nicotinic acid patients, two improved, seven were unchanged, and one patient was considered worse. Of the group receiving placebo, two improved, seven remained stationary, and one had failed. From this clinical study, nicotinic acid appears to have no effect on the patients' ward adjustment and behavior.

Discussion

Physico-Chemical Studies

Nicotinic acid was first used extensively in 1938, following the discovery by Elvehjem[3] that it was a specific agent in the therapy of black tongue, a disease of dogs. The similarity of this canine condition to pellagra in the human was noted, following which the effect of nicotinic acid on severe cases of pellagra was studied. Spies, Cooper and Blankenhorn found at once that this drug was a "potent therapeutic agent for treating the mucous membrane lesions of pellagra."[23]

Shortly after this, in 1940, Jolliffe and coworkers[13] discovered the agent to be of great value in the treatment of "nicotinic acid deficiency encephalopathy," which condition appears to be one result of a deficiency of this agent, and is also referred to as "pellagra sine pellagra."

The dosage used in these early studies of the pharmacodynamic effects of the drug is substantially the dose used today, although these early reports suggested that the critical dosage might later be found to be substantially lower.

Flushing of the facial vessels and the uncomfortable sensations of warmth, gastric distress, tingling and itching were noted by these early investigators, and it was this, plus the sense of fullness in the head, that probably led to the employment of nicotinic acid as a possible cerebrovascular dilating agent.

It has been used for many conditions since, usually with the hope of dilating a flagging circulation, whether intracranial, coronary, or other. In 1940, Moore[18] employed the drug in the treatment of multiple sclerosis, noting dilation of the pial vessels of the cat brain and spinal cord under direct observation. He used these findings as "presumptive evidence" that nicotinic acid would dilate the human intracranial circulation. In addition, Moore found a rise in C.S.F. pressure, coinciding with the dilatation of the peripheral vessels in five humans to whom nicotinic acid was administered.

In the published discussion of this article it was pointed out by Scott[18] that under direct observation of the temporal lobe, he "did not see any change" during the administration of nicotinic acid. One other physician raised the question of a vitamin effect rather than a vasodilatory one—a line of reasoning previously pursued by Jolliffe.[13]

Following these reports, nicotinic acid has been widely used and widely reported on as a dilating agent. Chittick[2] in 1941, saw improvement in the physical condition of the elderly mental patient, but failed to find changes in the mental condition, when the drug was administered for two to three weeks.

Others have continued to advocate the use of nicotinic acid, but the controlled experiment was not much in evidence. Moore[17] in 1951, reported on this agent when combined with histamine in the treatment of psychosis with cerebral arteriosclerosis. The description of this group of patients, who displayed retention of a sense of humor—for example referring to the nicotinic acid treatment room as "the glow room"—leads one to feel that they may have been relatively mild cases. Other variables in this report were electroshock, psychotherapy, group occupational and recreational therapy offered at intervals, as well as special social service interest and special ward surroundings and attitudes. Patients receiving similar special services and optimistic care and used as controls, were lacking. Some patients received no electroshock and some did; the maximum was fifteen "treatments." The authors concluded that the great majority of the patients benefited by this treatment, 21 of 29 cases being out of the hospital.

Throughout the article the treatment is referred to as "dilatation therapy," apparently with the assumption, at least in part, that nicotinic acid will dilate the intracranial circulation.

It had remained for an accurate method to be developed which would measure the intracranial circulation under normal, let alone pathological, conditions.

The first definitive efforts in this direction resulted in a pressure cuff being applied to the neck and inflated above the venous pressure and a needle inserted into the lumbar subarachnoid space. Since the brain and its vascular network are enclosed in a rigid vault, increase in volume is reflected at the lumbar space as increased flow of cerebrospinal fluid. Ferris[6] (Figure 2), after devising this method, combined with Aring and co-workers[1] to study the intracranial circulation during nicotinic acid administration. They found that during administration of the drug, the lumbar outflow of spinal fluid increased, further suggesting that nicotinic acid would dilate the intracranial vessels.

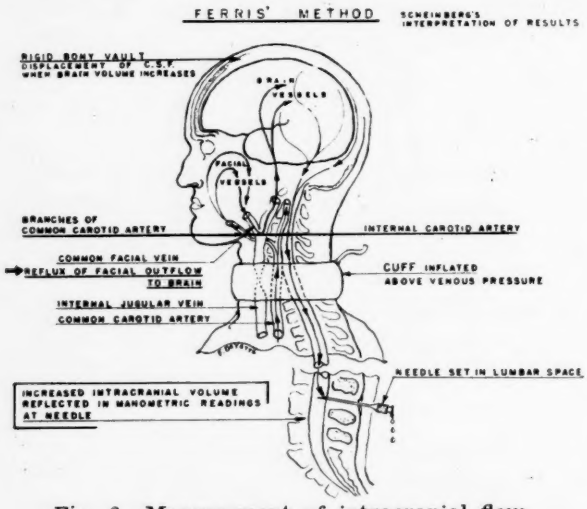

FERRIS' METHOD
SCHEINBERG'S INTERPRETATION OF RESULTS
RIGID BONY VAULT
DISPLACEMENT OF C.S.F. WHEN BRAIN VOLUME INCREASES
SPINAL VESSELS
FACIAL VESSELS
BRANCHES OF COMMON CAROTID ARTERY
INTERNAL CAROTID ARTERY
COMMON FACIAL VEIN
REFLUX OF FACIAL OUTFLOW TO BRAIN
CUFF INFLATED ABOVE VENOUS PRESSURE
INTERNAL JUGULAR VEIN
COMMON CAROTID ARTERY
NEEDLE SET IN LUMBAR SPACE
INCREASED INTRACRANIAL VOLUME REFLECTED IN MANOMETRIC READINGS AT NEEDLE

Fig. 2. Measurement of intracranial flow.

These studies still were based upon measurements made during periods of abnormal physiological conditions, such as a blockage of the venous outflow from the head. This, in addition to the fact that the method measures the blood supply to the brain only indirectly, through the displacement of spinal fluid, rather than through direct blood flow measurements.

In 1948 the Kety and Schmidt method for the determination of intracranial blood flow ("cerebral")[15,16] was developed. This method is based upon the measurement of the absorption of nitrous oxide by the brain from the blood supplied to it, utilizing the Fick principle. Following the development of this technique, which little disturbs the usual vascular dynamics, there appeared a flood of studies on special aspects of cerebral blood flow. Two of these should be mentioned. Fazekas and co-workers[5] studied the "cerebral physiology of the aged," utilizing this method. They found that cerebral oxygen consumption was lower in the aged, probably as a result of a certain universal degree of arterio-sclerosis in this group. Furthermore, the patients with clinical arteriosclerosis showed slightly lower oxygen consumption, but this decrease was independent of the degree of involvement. This suggested to the authors that "within a wide range the rate of transportation of blood to the brain is by no means the only factor which may influence cerebral function."[5] Further, they concluded that "The data suggest that decreased cerebral enzyme activity and/or impaired oxygen availability may contribute to the changes in central nervous system function so frequently encountered in the aged."[5]

Scheinberg[21] in 1950, applied the Kety and Schmidt method to the study of nicotinic acid therapy. He felt that Aring and his group, using the Ferris inflatable cuff method,[1] were compressing the facial as well as the cerebral venous outflow, at a point well below the junction of the common facial vein and the internal jugular system. Scheinberg felt that the facial outflow, as seen in Figure 2, under these conditions would back up into the intracranial venous system, contributing to the increase in volume there, which volume Aring measured as spinal fluid displacement in the lumbar region. In short, Scheinberg felt that the increase which Aring had found might well have been due to an increase in facial circulation with nicotinic acid. Utilizing the Kety technique, he inserted a catheter below the merging of the facial and jugular systems, and a needle five centimeters above this point, in the internal jugular bulb, as seen

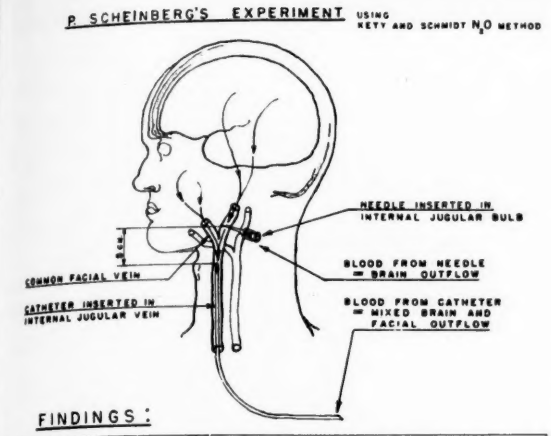

P. SCHEINBERG'S EXPERIMENT USING KETY AND SCHMIDT N_2O METHOD
NEEDLE INSERTED IN INTERNAL JUGULAR BULB
BLOOD FROM NEEDLE = BRAIN OUTFLOW
COMMON FACIAL VEIN
CATHETER INSERTED IN INTERNAL JUGULAR VEIN
BLOOD FROM CATHETER = MIXED BRAIN AND FACIAL OUTFLOW
FINDINGS:
AT CATHETER: (FACE & BRAIN)
INCREASE FLOW
DECREASE A-V O_2 DIFFERENCE
AT NEEDLE: (BRAIN)
3 CASES
2 UNCHANGED
1 INCREASE O_2 CONTENT
BUT NO CHANGE IN FLOW
"...INTRAVENOUS NICOTINIC ACID IN FLUSHING DOSES DOES NOT PRODUCE CEREBRAL VASODILATATION...."

Fig. 3. Measurement of intracranial blood flow.

in Figure 3. Gathering simultaneous samples, it was evident that nicotinic acid did not produce cerebral vasodilatation. He stated: "The finding that intravenous nicotinic acid in flushing doses does not produce cerebral vasodilatation indicates that this drug probably has no place in the treatment of cerebral vascular disease unless it possesses some therapeutic action aside from its effect on cerebral vessels."[21]

The present study confirms this finding by means of several more clinically oriented measurements. A repeated scrutiny of the memory, the electroencephalograms, the electrocardiograms, the clinical behavior, of our group of arteriosclerotic patients has failed to show any benefit in the treatment of the arteriosclerotic psychosis with nicotinic acid. If anything, the drug produced some worsening in the patients' condition, with partial recovery after cessation of its administration.

While we believe that nicotinic acid is without beneficial effect, it might be postulated that this agent could dilate the intracranial vessels without benefiting the arteriosclerotic psychosis. There would then be three possibilities. One is the repeatedly confirmed observation that the oxygen available to the brain does not change significantly during fairly major changes in the caliber of the containing vessels. Simply stated, this amounts to the fact that when a stream widens, the velocity of flow diminishes, rather than increasing, although the total volume of contained fluid may not have changed at all.

Secondly, the basic cerebral metabolic function, insofar as we are now capable of measuring it, does not change over wide ranges of differences in the quality and quantity of blood supplied to it. This had led Scheinberg and others[21] to postulate that the basic disturbance in this condition may be a failure of an enzyme system or systems. Such failures of enzyme activity have been found in other organic conditions, such as paresis. In paresis, Hadidian and Hoagland[8,9,10,11] found a "reduction of available cytochrome and its oxidase," bringing about respiratory difficulties in the brain tissue, difficulties which in all probability lead to the slowing and other abnormalities seen in the electroencephalogram.

Psychological Considerations

A third possibility exists. It is that in the psychosis with cerebral arteriosclerosis we are witnessing the temporary or permanent disintegration of a personality faced with immutable decline of mental function consequent upon arteriosclerosis or aging.

Rothschild, studying the organic psychoses of the aged, was struck by the relative lack of difference between the old person with psychosis, and the equally old person who continued to function quite well.[19,20] In the senile psychosis, placques were not enough to explain the patient's behavior, since they exist in the "normal" aged as well. In the arteriosclerotic, vascular changes at autopsy were also too poorly correlated with differences in the patients' clinical condition. Thus, he early postulated that the psychoses observed in these conditions might well be, at least in part, psychologically determined. Rather than being a purely "organic" condition, it might then be the reaction of a personality threatened with failing capacities, whether in memory, judgment, or other special functions of the personality. Rothschild noted the ". . . distinctly ill balanced personalities displayed by many of the patients".[23] Finding that ". . . in many instances the neuropathologic changes alone cannot satisfactorily explain the

presence of a psychosis,"[23] he felt that ". . . whether a psychosis is or is not going to occur may be the person's capacity to compensate for the damage rather than the damage per se."[23] Urging a psychological orientation, he stated: ". . . patients with an arteriosclerotic psychosis should be scrutinized not as passive carriers of a morbid structural process, but as living persons whose inherent and acquired traits and individual problems are a pertinent object of study."[23] The present authors tend to agree with this latter conclusion, especially in the light of the partial success enjoyed in treating this category of patients by methods formerly employed only in the therapy of younger individuals.

It follows that if we are dealing with a psychological reaction to the arteriosclerotic process, no amount of vasodilating agents, effective or not, could reasonably be expected to help.

That this patient group worsened on nicotinic acid, rather than remain stationary, deserves some consideration. It would seem probable that any agent which dilates the rich facial vasculature would make greater demands upon the common arterial supply, as well as upon the common venous drainage. If any effect would thus be produced, it would be in the direction of a decreased available intracranial arterial supply, and an increased intracranial venous congestion. Whether this is the explanation of the finding of worsening function in this group is, however, speculation.

Summary

1. Twenty-one patients with a diagnosis of cerebral arteriosclerosis with psychosis were studied as to the effect of nicotinic acid compared with the effect of a placebo.

2. Variables investigated were electroencephalograms, electrocardiograms, memory function, and clinical ward behavior.

3. Nicotinic acid therapy in this study was associated with a measurable slowing of the EEG's, a worsening of the ECG's, and a moderate worsening of memory function. Ward behavior in the two groups showed no differences.

4. The unfavorable changes of these variables were distinctly less marked in those patients who received placebos.

5. It appears that nicotinic acid is of no value in the therapy of cerebral arteriosclerosis with psychosis and, if anything, had a detrimental effect on cerebral function in the group so treated.

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Hypnoanalytic Elucidation of Motivation and Goal In Relation to Psychotherapy

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Introduction

When reporting case data involving dynamics of motivation and goal there is delineated often the steps involved in clarification and perhaps in attainment of such goal. In actual practice, on the other hand, it is found that elucidation of motivations and strivings reveals doubt that certain goals seemingly reasonable and desirable are actually so when the underlying motivations are discovered to be of questionable merit. In such cases the end result may be relinquishing of the goal. This may be temporary or permanent depending on possibilities for modification of the goal itself and substitution of healthier motivations. In this report there will be discussed some aspects of this problem as it occurred in a patient in analytic treatment. There will be elaborated later some important elements in the hypnoanalytic phase of the investigation.

Case Data

A forty-year-old woman had been interested in singing for many years. From time to time she would sing before gatherings at weddings, social clubs and similar settings. More recently she expressed special interest in appearing more frequently and regularly before such groups ostensibly because it would be financially rewarding. The patient was actually employed, however, on a regular basis at other work. Her salary in addition to that of her husband permitted them to live in moderate circumstances. Her husband's job actually entailed steady security. The problem besetting the patient was that when anticipating appearance and actually singing before such groups she would experience great anxiety which she felt blocked in achieving her goal. She would attempt to allay her anxiety with partial success by consuming alcoholic drinks prior to her appear-

ances. It should be noted that in attempting to further her entertainment appearances she would make increasing inroads into her leisure time because such engagements were in addition to rather than replacement for her regular work.

The original opposition by her father to such activities was readily recalled by the patient. During treatment she discussed this as well as the pathological attitudes of her father toward sex, and his claim that she might become a tramp if she entered the entertainment field. She dealt with her desires to be admired for a wonderful voice, to receive special attention and to achieve a feeling of independence.

For some time the patient's therapy did not involve the use of hypnosis. When she began pointedly to stress the singing problem and appeared to be making no particular progress it was agreed mutually that a hypnoanalytic approach might be integrated into therapy.

The patient was able to achieve a satisfactory hypnotic state without difficulty. She was asked then to recall anything she could think of in connection with her singing problem. She proceeded to tell of an episode when she was between eight and ten years old, which had occurred at the home of an uncle. His daughter, older than the patient, was said to have a beautiful voice. She also played the piano. The patient began to sing, did well, and others present were "amazed" at her ability. This uncle then informed the patient's father of this. He was "horrified." It should be stated parenthetically, that the father was known to have had homosexual involvements. His extremely fluctuating critical and ingratiating attitude toward women was frequently observed by, and made a considerable impression on his children. The father, on obtaining the account about his daughter from her uncle, expressed fear that she would become a "bum." While opposing her pleasure in singing, he wanted her to play the piano, which she claimed she did poorly. Consistent with other aspects of his behavior, her father requested her to sing for him on weekends and gave her small sums of money for so doing. Her brothers mocked her and criticized her singing.

Under hypnosis she revealed further that in her early teens she entered a singing contest and received compliments from the judges, only to be disappointed in losing. She also sang for social groups at the time, but denied anxiety. At fifteen she sang throughout the night at a wedding anniversary celebration and apparently damaged her voice. She had difficulty with it for months afterwards, especially with high notes.

At high school she was asked to see the head of the music department and was rejected by him for a particular role. Informed that she needed much training she believed he considered her voice to be poor. Later he accepted her for a special role. While recounting this she commented, "Now I can see he was like my father—a strict sort of person." She considered refusing the role offered her, just to be spiteful. Resisting this temptation she performed well. Her father denied her request for flowers for the night of the performance, and when she became angry and abusive he did not attend. She received flowers and praise from others, though her father continued to object to her performing. While she continued to imagine how wonderful it would be to sing professionally, her father reiterated how unhappy it would make him.

At eighteen she was an office worker. Still harboring thoughts of a professional career she stopped smoking to protect her voice. Later, with anticipation of persistent paternal opposition, she began to smoke again. Finally, when she married she abandoned aspirations of becoming an entertainer.

After the patient's father had died she contacted a professional caterer who advised her that she would be making a serious mistake if she did not continue to sing. Continuing under hypnosis, the patient revealed her mother's initial objection and subsequent agreement. "When it came to that, my mother was authority—as if she carried on my father's wishes."

She had a number of auditions and sang at weddings, but experiencing considerable anxiety she began to drink before entertaining in order to calm herself.

At the conclusion of the hypnotic session, the patient's first induction, she was given posthypnotic suggestions for integration of recollections and increase in understanding of

her problem, in addition to reduction in anxiety. On emerging from the hypnotic state the patient expressed a feeling of relief and maintained surprise at having recalled the incident involving her uncle, because she had not thought about it for many years. She asserted spontaneously that what she had previously discussed consciously, produced during the hypnois an emotional impact which had not otherwise been present.

At her next hypnosis session the patient associated freely about the singing problem. She spoke about a radio audition which was followed by receipt of a letter to appear on a program. A brother intercepted the letter and showed it to her father who would not permit her to perform. "He told me a story about how these people go astray. . . . The story was how a man was like a glass that could always be washed when dirty, and a woman was like a pot that couldn't be cleansed when dirtied." The patient told about singing with a group in a social setting and of the offer of an advertising man to get her on the air under an assumed name. "I connected it immediately with the idea that he might want to use or abuse me. I thought of getting married and then I'd be safe. A terrible fear came over me at that time. I felt a big relief—like a burden off me if I gave it up. I would make my father happy."

The patient was requested to let her mind wander during the hypnosis and was told that additional data would come to light. At first she said, "It doesn't seem to come up. I seem to get a tenseness in my head." But then she continued: "On the one had my father would say how beautiful music was. On the other hand it was forbidden to me. It was like he was making it easier for me . . . to avoid the competitive field. Although it was a battle, in a way I was glad he was stopping me. I was uncomfortable with him and he was uncomfortable with me. Yet he always wanted me to sing for him."

After telling about a request by her school principal to sing with a group which proceeded to win a prize, and during which she sang well, the patient continued: "I'm afraid —what if I can't sing like I should. Will I compromise. I made a compromise with my father. I made a compromise when I married A——. Then my father said how wonderful it is to have a voice. Men will fall in love with you. Oh! He was such a mixed-up man. He made me so mixed up. I feel I never sing well in front of people. Such a fear in me! Such guilt! It was so amazing to me to make money by singing. Such guilt! Yet I had a drive to do it. Like I was fighting my father! I had to fight my mother too! Yet, now she's anxious for me to sing."

"I asked A—— (her husband) about that man (who offered her a singing opportunity)." The husband said not to sing, and that he didn't want to be known as Mr.—— (an improvised stage name for the patient). "I never was nervous at A——'s club. I felt it was the only way I could impress people." She continued to tell how she considered her voice acceptable—better than that of the average amateur singer.

The patient revealed that when singing she experienced special difficulty with high notes. She was asked, "Do high notes seem to have some special meaning?" "I feel if I let go I can sing high notes. I'm afraid to let go because I feel I'll lose control of myself." She repeated the story about singing overnight when fifteen years old and of impairing her voice for some time as a result. "The minute I get into the high notes I grow tense. Then all of a sudden they come out. They're wonderful. I can do it when I'm alone."

Further posthypnotic instruction dealt with bringing up new material and integrating data during and between sessions. Following the hypnosis the patient spoke about her experiences during the trance state and asserted that even when speaking about events she could otherwise remember, there was an altered feeling tone during the hypnosis. It seemed to her that what she recalled and spoke about had more emotional significance for her during the hypnotic state.

During the next hypnosis the patient was requested to dwell again on singing high notes in order to see whether additional ideas could come to view. "It's difficult. There's something churning but I don't know what it is. All week a thought kept coming to me that I identify singing and sex and the taboos about it—like I identify high notes with

letting go and sex, and that I should let go and not try to control it. I'm not free in sex or in anything else. I don't know how to break free. When I forget myself and let go they come right out. I try to control it like I was controlled for years by my father." She was asked: "When did you first get the link between high notes, letting go, and sex?" Patient replied: "It was there and it came to me when I left here last week." Again asked: "How do you think you can overcome that difficulty?" She answered: "I don't know. I felt that by studying this new type of singing, developing the muscles in the throat, I can overcome it . . . (She described feeling recently that her tongue was swollen and choking her.) I might have ripped something in my throat." This she believed might have caused her difficulty with high notes.

When it was pointed out that she was avoiding the psychological issues she had mentioned, she replied that she experienced the very feeling of the physical situations. When asked whether she thought a changed attitude about the sex link with high notes could help eliminate her difficulty, she replied that she did think so and proceeded to speak about her confusion concerning her sexual attitudes toward men and their attitudes toward her. She mentioned her distaste for sexual relations with her husband. "There's a feeling of dirtiness linked up with it. I have that feeling about singing. In a group I'm afraid to sing out for fear of calling attention to myself. I sing low."

Dr.: "Can you feel when you're singing that you're not making a sexual display of yourself but that you're only singing?"

Pt.: "I never thought I was making a sexual display of myself but I realize now that that's what I feel I do. Oh yes! That's why there's so much guilt attached to it." She described singing before some people including a band leader, and that she sang in a sexy way. "Sure I was making a sexual display of myself through singing." She told of a woman admiring her and of saying she had "it." "That's what I'm afraid of in front of people. If I open up my throat for the high notes it would be a sexual display." She then told of a particular band leader who made advances.

Pt.: "How can I change that idea of making a sexual display now that I know about it?"

Dr.: "Do you really know about it?"

Pt.: "Now it has become very clear to me. I never really realized it. I got the same kind of sexual gratification out of dancing. Isn't that amazing!"

Dr.: "Are you referring to the singing now?"

Pt.: "The singing and the sexual display. . . . I used to have deadly fears of being a fallen woman. The idea fascinates me now. Sex must be a terrible thing in my life. It's only when A—— becomes violently angry, that I submit. Even B—— (a singing teacher) frightened me. When I started to sing freely he'd say, 'Now you're thrilling me. Now you excite me . . .' I was frightened when he said that. I think that's why I changed to a woman teacher. I think he meant something sexual by that. Do you?"

Dr.: "I don't know."

Pt.: "Exciting and thrilling is sexual. With C—— (another singing teacher), I'm stiff as a board. Maybe it's because I'm new with him. I'm not too comfortable when I'm alone with him. When D—— (her brother) is there I feel more comfortable."

Dr.: "Have you done any singing since I saw you last?"

Pt.: "In public, Saturday night. Oh yes. When I got to the high notes I pulled back and sang soft and thin. It should have been big."

Dr.: "Do you feel that this new material will help you with singing?"

Pt.: "Oh, I hope it does. I should."

When the patient emerged from the hypnosis she verbalized again her reaction to the material which had been discussed. "Isn't that amazing!"

The patient related prior to the next hypnotic interview that she sang at a wedding since she had last been seen, and that she sang in a lower key to protect herself from having to sing high notes. At the same time, in contrast to her previous anxiety when singing regardless of key, she experienced no anxiety on this occasion. She was perplexed about the sexual connotation of the high notes, expressing the feeling that the identification was an emotional experience for her, whereas the concept in intellec-

tual terms seemed strange. "It seems so crazy!"

The patient entered an hypnotic state again and was told that in thinking about her problem now she would be able to integrate her ideas and verbalize them. "Just as you said this, my father came to mind. I don't feel that now when I sing." Dr.: "You used to?" Patient: "Yes, I used to feel that I was doing something wrong. The head of the music department, when he was coaching me—I identified him with my father. I was in deadly terror of him. I couldn't sing out for him. Even now, somewhere in the back of my mind is my father." The patient described a recent singing experience when employed for the occasion by rabbi. "He's just like a judge. Somehow like my father was to me." She talked more about her father, then said she was thinking about the way she had been equating the singing of high notes with displaying herself sexually. "It's always been very important for me to sing. I felt that's the way I'd be accepted. . . . When you sing high notes and do them well, it seems like your voice is running away from you. That's what I'm afraid of. I have to repress it like I repress everything in my life. I guess it's some kind of recognition of me from people when I sing, even when they don't say anything. When I used to sing for the caterers and I felt great anxiety I used to get colds. I'd get most horrible colds just before I had to sing. I thought they were psychological. Ever since I started to sing for this rabbi I've walked around with clogged ears and a bad throat."

At a subsequent hypnosis session she mentioned thoughts about the link between singing and sex and how it was forbidden. "I hated my father when I was here last week for making me feel that way. I was wondering whether high notes meant being a woman." She wondered whether her preference for lower notes related to her conflict about femininity, and quoted her father's expressed attitude. "It's disgusting to be a woman." Then she related a dream about a man who was singing and having difficulty with high notes. She felt this was related to, and was consistent with the ideas mentioned above in connection with her problem.

Still in hypnosis, the patient was asked whether any other memories occurred to her. "My father's horrified expression when he found out I could sing." She then repeated his comments about sex and women being used and thrown away. The same comments were made about singers. "When I started to sing again for caterers I felt something. It was lewd or something."

Discussion

The dynamics in the conflict about singing are amply illustrated in the case material and require no extensive amplification. The pathological characteristics of her father were verified through other sources. The patient was attempting to work out certain aspects of her feeling and disturbance in relation to her father through her interest in singing. This knotty problem was accentuated further by the confusion in her father's behavior toward her. His perverted sexual ideas and impulses played a role in his relationship with her and his purchase of her attentions through singing in her early years, at the very time that his condemnation of her interest in singing lent itself to the identification of singing and sexual abuse. Involved in her anxiety were issues of exhibitionism and conflict over masculine and feminine identifications. The investigation revealed a basically neurotic core to her interest in singing, and it became clear as therapy continued that her goal would best be deferred or abandoned pending possible development of more meaningful and normal motivations despite some improvement that had set in.

Certain points relating specifically to the hypnotherapy deserve mention. The patient was impressed by the fact that her discussion of various issues in hypnosis, which had nevertheless been consciously available to her previously, now assumed a feeling of greater emotional significance. She expressed this feeling of her own accord. This type of patient reaction occurs frequently in hypnoanalysis, although no general rule is presented. It is, however, one of the potential advantages of hypnotherapy.

Another point is that of emotional, as contrasted with intellectual insights, as it is referred to often in writings on psychotherapy. As already described, allusion is made

frequently to patients obtaining intellectual insight but experiencing difficulties owing to absence of emotional reactions to material elicited or to therapeutic interpretations. Some patients do, in fact, experience insight on an emotional level prior to intellectual integration and acceptance. This occurs far more frequently than is realized and has been observed by the writer during hypnotic and non-hypnotic psychotherapy. The reaction described here is, of course, different from that which has been referred to as corrective emotional experience.

Hypnotherapy or hypnoanalysis is thought of generally as constituting procedure in lieu of non-hypnotic psychotherapy. This view possesses its own validity and a variety of advantages in certain cases has been discussed. At times, however, the incorporation of hypnotic technique into treatment is viewed as an adjunct procedure, but well delineated, specific illustrations are not supplied. The case presented demonstrates the utilization of hypnoanalytic technique which did not entail the employment of complex hypnotic devices and which, as a result, may be incorporated with relative ease by the properly trained psychotherapist. This approach reflects one of a wide variety of methods which can lend depth and range to treatment far beyond delimited stereotyped concepts of hypnotherapy and hypnoanalysis.

Summary

A forty-year-old patient experienced difficulty in relation to an expressed interest in singing and functioning as an entertainer. Analytic work on this problem met with obstacles which were then approached through hypnoanalytic technique of a type that relied on free association and conversational exchange. Her understandings were augmented, and in the process it became clear that her goal involved motivations which were basically neurotic. The ramifications were explored and resulted in a decision to defer and perhaps abandon this goal pending possible development of healthier motivations.

During the course of this treatment it became evident that the patient's involvement in hypnosis permitted her greater emotional absorption and integration of data which had been previously available to her. It was shown further that emotional insight may precede intellectual insight in contrast to the reverse order of response which is so frequently emphasized.

This case illustrates the potential advantages of hypnotic technique for incorporation into certain phases of psychotherapy or analysis. This is to be compared with the more limited view of hypnotherapeutic procedure, as complete replacement for the non-hypnotic method for a given patient. Depth and range of treatment beyond delimited stereotyped concepts of hypnotherapy and hypnoanalysis has been reemphasized.

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Chlorpromazine in Conjunction With Other Psychiatric Therapies: A Clinical Appraisal

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The Smith, Kline, and French Laboratories, which market chlorpromazine hydrochloride under the trademark, "Thorazine," publish a continuing series of pamphlets on the clinical uses of this drug. These clinical briefs and the rapidly accumulating literature on the subject provide a ready reference background about its history, chemical synthesis, pharmacologic actions, and clinical applications. It is said to have "a unique, selective depressant action on the central nervous system and is of unusual value in the symptomatic control of certain mental and emotional disturbances." Clinically, chlorpromazine relaxes a patient to produce tranquility, without causing mental dullness or confusion.

This investigation was begun on June 1, 1954, in order to gain first hand information on the value of chlorpromazine in neuropsychiatry. Earlier workers were still uncertain about proper dosage, methods of administration, degree of known toxicity, or whether the drug produced only symptomatic relief or altered the structure and content of the neuroses and psychoses. Sadove and his co-workers[1] found that chlorpromazine would potentiate the action of narcotics, hypnotics, and anesthetics, and used it in conjunction with narcotics in the management of intractable pain. Cummins and Friend[2] reported excellent results in alcoholism. Winkleman[3] found chlorpromazine useful in states of anxiety, tension, agitation, hypomania, mania, and in some obsessive compulsive and phobic disorders. He also reported good results in the treatment of personality dissociation and agitated senile psychoses. Lehmann and Hanrahan[4] used the drug effectively as a primary, or principal treatment measure in schizophrenia and found it helpful in unsuccessfully lobotomized patients. These investigators likewise found chlorpromazine effective in all the syndromes listed by Winkleman, and concluded that "the drug is of unique value in the symptomatic control of any kind of severe excitement." These reports opened up a broad vista of multiple psychiatric syndromes that might be benefited from chlorpromazine therapy.

The 149 patients in this series comprise the entire gamut of neuropsychiatric disorders. They were all hospitalized private patients, with many of them being in a general hospital. They demanded and received our personal supervision. We lacked experience with the pharmacologic actions of chlorpromazine and had to rely on the observations of the earlier investigators. However, it soon became apparent that the dosages of chlorpromazine then recommended were inadequate to obtain sustained results in most patients. Kinross-Wright[5,6,7] had begun to use much larger doses and utilized the technique of a gradual buildup to an average maximum daily dosage of 1400 mg. The largest amount he prescribed was 3400 mg. in 24 hours. With his boldness to offset our therapeutic timidity, doses were increased by graduated daily increments to an average maximum range of 800-1000 mg. per day in normotensive patients under 69 years of age. Unless contraindicated by advanced age, or hypertension, patients were first given intramuscular chlorpromazine, supplemented each 24 hours by increasingly larger oral doses. Since each injection site becomes painful and indurated, parenteral administration is abandoned as soon as the maximum drug effect has been obtained.

The maximum daily requirement of chlorpromazine, usually attained by the fourth to sixth day, is the amount needed to produce a state of "miserable" drowsiness, dizziness, and weakness in a muscularly relaxed, though easily aroused, patient. In

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this status, the patient is indifferent to former anxiety-inducing ideas, and previous hostility, irritability, agitation, or excitement, will disappear. In addition, the patient may suffer any or all of the autonomic effects of the drug, to wit: facial pallor, dry mouth, unpleasant taste, nasal stuffiness, blurred vision, and marked constipation. Excessive dreaming may occur. "Heart-burn" is caused by gastric irritation. Trouble can be averted if the patient is warned beforehand of these side-effects and also to expect an uncomfortable sense of lassitude for the first week. With certain exceptions, dictated by the physical status, a standardized procedure of dosage buildup and reduction was devised, and is similar to dosages and methods outlined in recent releases from the pharmaceutical house.

Chlorpromazine acts on the cardiovascu-

TABLE I

BLOOD PRESSURE REDUCTION BY AGE GROUPS
57 NORMOTENSIVE PATIENTS

AGE	Under 40	40-59	60-69	70 plus
Number of patients	23	24	7	3
Fall < 10 mm hg.	11 (48%)	5 (21%)	2 (29%)	0
Fall > 10 mm hg.	12 (52%)	19 (79%)	5 (71%)	3 (100%)
Average B.P. Fall				
Systolic	25.5 mm	25.6 mm	31.2 mm	34.7 mm
Diastolic	12 mm	18.5 mm	23 mm	22.7 mm
Average Number of Days to Re-establish B.P.	4.2	4.7*	5.4*	Rx Discont.

*Restabilized only after IM Chlorpromazine Discont.

TABLE II

BLOOD PRESSURE REDUCTION BY AGE GROUPS
11 HYPERTENSIVE PATIENTS

AGE	Under 40	40-59	60-69	70 plus
Number of Patients	1	8	1	1
Pre-treatment B.P. Range	150/110	180/120 158/96	150/100	200/110
Fall < 10 mm hg.	0	0	0	0
Fall > 10 mm hg.	1 (100%)	8 (100%)	1 (100%)	1 (100%)
Average B.P. Fall				50 mg. IM 50 mg. PO
Systolic	50 mm	40.5 mm	60 mm	90 mm 50 mm
Diastolic	60 mm	29.2 mm	30 mm	50 mm 30 mm
Average Number of Days to Re-establish B.P.	16*	8**	Rx Discontinued	RX Discontinued

*On IM Chlorpromazine 14 days.

**Restabilized within 24 hours after IM Chlorpromazine Discontinued.

TABLE III

ALLERGIC AND/OR TOXIC EFFECTS
149 PATIENTS

REACTION	No. pts.	% of pts.	Drug cont. safely	Drug disc.
1. Anaphylactoid Reaction	1	0.7%	0	1
2. Pedal Edema	2	1.4%	1	1
3. Fever (In Absence of Other Demonstrable Cause)	5	3.4%	0	5
4. Dermatitis With Fever	2	1.4%	0	2
5. Dermatitis (Urticarial; Maculopapular; Sunlight Type)	9	6.0%	1	8
6. Itching Without Eruption (Excoriation)	3	2.0%	3	0
7. Parkinsonism (Apathy, Masking, Rigidity)	2	1.4%	2 (Lower Dosage)	0
8. Jaundice & Parkinsonism	1	0.7%	0	1
9. Jaundice	1	0.7%	0	1
TOTAL	26	17.4%	7 (4.7%)*	19 (12.7%)

*Able to continue in 7 patients, leaving 12.7% in whom drug discontinued because of resistant complications.

lar mechanisms to cause hypotension and tachycardia. The hypotension is most pronounced within the first hour after each parenteral dose and is intensified in the upright posture, with a resulting giddiness, and even syncope. Serial blood pressure readings were taken in each of 57 normotensive patients to determine if the hypotensive effects were more marked or persistent with advancing age. To eliminate the factor of posture, readings were made in the recumbent position one hour after each parenteral injection, then subtracted from the pre-administration pressure and averaged for all doses, to obtain the blood pressure changes shown in Table I. Fifty-two per cent of the patients under 40 years had more than a 10 mm. drop in both systolic and diastolic pressures. In patients over 40, 70% and 71% had more than 10 mm. of Hg. fall. Only 3 patients over 70 were treated and all had a marked fall in blood pressure. Patients under 40 re-established their normal blood pressure levels on an average of 4.2 days,

TABLE IV

CHLORPROMAZINE AS PRIMARY THERAPY, 83 PATIENTS

DIAGNOSIS	No. of Pts.	Type of Prior Therapy		TREATMENT RESULTS: Remission	Improved	Not Improved	Discontin. Complications	Total Improved
Organic Brain Syndrome	5	Other Drugs	2	1	2	0	2	3 (60%)
Character Disorder (Overt Anxiety or Dyssocial Behavior)	6	Psychotherapy Other Drugs	4 2	3	1	2	0	4 (66%)
Psychoneurosis (Obsessive Compulsive, Anxiety, Phobia)	12	Psychotherapy Electroshock	5 3	3	3	2	4	6 (50%)
Endogenous Depression	15	Electroshock	8	6	3	2	4	9 (60%)
Manic Psychosis	2	Electroshock	2	2	0	0	0	2 (100%)
Acute Schizophrenia	11	Insulin, EST	5	4	2	4	1	6 (55%)
Chronic Schizophrenia	32	Insulin, EST	27	10	7	7	3	17 (63%)
		Lobotomy	5	2	0	3	0	2 (40%)
TOTAL	83		63	31	18	20	14	49
PERCENTAGE	100%		76%	37%	22%	24%	17%	59%

TABLE V

CHLORPROMAZINE AS AN ADJUNCTIVE THERAPY, 72 PATIENTS

DIAGNOSIS	No. of Pts.	—RELATED THERAPY— Sub-Coma and Coma Insulin	Electro-Shock	Insulin Coma EST	Lobotomy	Psychotherapy Supportive	——TREATMENT RESULTS—— Remission	Improved	Not Improved	Discontin. Complications	Total Improved
Chronic Organic Brain Syndromes	5	0	0	0	0	5	1	2	0	2	3 (60%)
Character Disorder (Alcoholism, Addiction)	9	0	0	0	0	9	1	8	0	0	9 (100%)
Obsessive Compulsive Psychoneurosis	4	3	1	0	0	0	1	2	0	1	3 (75%)
Manic Psychosis	2	0	2	0	0	0	2	0	0	0	2 (100%)
Endogenous Depression	11	1	8	1	1	0	8	3	0	0	11 (100%)
Acute Schizophrenia	12	4	3	3	0	2	7	3	0	2	10 (83%)
Chronic Schizophrenia	11	0	5	3	2	1	4	5	1	1	9 (82%)
Furor State in Insulin Coma Treatment	18*	18	0	0	0	0	16	2	0	0	18 (100%)
TOTAL	72	26	19	7	3	17	40	25	1	6	65
PERCENTAGES	100%	36%	26%	10%	4%	24%	56%	35%	1%	8%	90%

*Six also included in Table IV. Four in "Not Improved" Group; Two Discontinued for Allergy.

but the intramuscular route had to be abandoned before the pressure would re-establish in patients over 40 years of age. Until normal pressures are re-established every patient on standing should be protected from falling.

Table II shows that hypertension, regardless of its range or the patient's age, predisposes to such marked hypotensive effects, that hypertensive patients should be kept in bed during the period of intramuscular administration. Patients above 70 years of age do not tolerate this hypotension and frequently become somnolent in bed and syncopal when erect. Excessive somnolence in the aged and in hypertensive patients seems to be in direct proportion to the hypotensive cerebral hypoxia.

Table III lists the toxic, probably allergic, reactions which were experienced by this group of 149 patients. Twenty-six patients, or 17.4%, had one or more of the numerous complications which have been reported in detail by other investigators.[1,2,3,7] The use of an antihistamine, or else a reduction in the "Thorazine" intake, enabled seven patients to continue treatment. Thus, it had to be discontinued in only 19 patients, or 12.7% of the total. It was stopped immediately in cases of jaundice, fever, and severe dermatitis. This incidence of complications conforms, in general, to the percentages reported by other investigators. All of the listed symptoms or signs, including the jaundice (serum bilirubin level restored to normal) and Parkinsonism, had disappeared within two weeks after the drug was discontinued. These complications, especially jaundice, must be respected. On the other hand, such carefully documented studies on jaundice, as that of Cohen and co-investigators[8], revealed no liver damage.

Table IV and Table V list the number of patients in each entity and the results in terms of full remission (require no supervision at home); improved (need supervision at home); and those patients unable to take "Thorazine" because of a complication. The total number of patients improved follows each diagnosis and is to the extreme right side. The results as tabulated, reduce each patient under that diagnosis to a common denominator. They tell nothing about the dynamics, duration of an illness, or other factors which normally influence prognosis. The number of patients in each group is so small as to prevent such a meaningful breakdown. A large series should be collected on acute schizophrenia, for example, in order to study the correlation between dynamic forces, the amount and duration of chlorpromazine administration, and length of time required to attain either a remission, symptomatic relief, or to find that the patient is unresponsive.

Of the 83 patients in Table IV, 63 or 76%, had received some type of prior psychiatric therapy either several weeks before "Thorazine" treatment, or at some time in the more distant past. We found no specific correlation between those patients with a history of previous treatment and the percentage of improvement, except that three cases of acute schizophrenia with previous treatment, did attain temporary remissions with chlorpromazine. This drug was the principal, or primary treatment for all patients in Table IV and was supplemented by the influence of the hospital routine, plus supportive psychotherapy.

Of the five cases of organic brain syndromes in Table IV, one was a nine year old child with infectious chorea. Fifty milligrams of chlorpromazine orally every 4 hours controlled the restlessness, and the hyperkinetic phenomena were relieved after 18 days. The remaining 10 patients of this group in Table IV and Table V ranged from a brain damaged child with convulsions and temper outbursts, through a wide range of non-neoplastic chronic brain conditions affecting all ages. Four patients had psychoses with arteriosclerosis. In contrast to other reports, only one arteriosclerotic patient could continue on the drug, as the other three experienced disabling hypotensive effects. It was our impression that "organic" anxiety, restlessness and agitation was materially reduced in those patients who did tolerate the drug.

The next group, the character disorders, are patients whose personality structure is such that they have a very low tolerance to anxiety and resort to alcohol, narcotics, uncontrolled rages, or other forms of socially unacceptable behavior. In this group, chlor-

promazine has proved to be a useful crutch to replace alcohol, sedative drugs, and addicting narcotics. It definitely helps the individual to control impulsive activities. For example, three months ago a graduate nurse of a cloistered order, possessor of a paranoid character, long given to secret imbibing and temper outbursts toward her associates, was placed on a maintenance dose of 50 mg. of "Thorazine," four times daily. Although far from docile, she has caused no more trouble in her church community.

Chlorpromazine induces partial relaxation and reduces muscular tremors in alcohol withdrawal but, in our experience, small doses of barbiturates are still necessary adjuncts for adequate control. In four cases of narcotic addiction it was possible to use smaller doses of the narcotic—a finding reported by Sadove and associates.[1] The drug did shorten the withdrawal period, reduced irritability and "griping" to a minimum, and helped to promote a feeling of well-being and better cooperation during the rehabilitation period.

While on our routine of "Thorazine" administration, six moderately severe anxiety states made a good response, but the remaining six psychoneurotics were of the chronic obsessive compulsive type and did not improve. As with most therapeutic tools, the acutely ill cases responded best to chlorpromazine; whereas, patients with a long history of disability, which had been relatively uninfluenced by previous treatment, did not achieve lasting relief. The drug is a helpful adjunctive when it reduces anxiety, or related symptoms, so the patient can profit from psychotherapy or become able to plan constructively for the future.

Table IV reveals that chlorpromazine, as the primary therapy in the affective reactions, which include mania and endogenous depression, produced a 100% and 60% rate of improvement, respectively. Circumstances were such that only two manic patients were treated in this manner. Both were treatment failures from electro-shock. One patient, hospitalized for four months, had frequent relapses while on the electro-shok program. Two weeks after institution of "Thorazine" and discontinuance of electro-shock, she had established a remission which has been maintained for four months. Six of the 15 depressed patients developed full remissions. One such patient became asymptomatic in 12 days and another in 16 days, but improvement was much slower in the remaining four patients. As indicated in Table IV, 60% of the depressions improved, but as would be expected, each of them had been agitated, or overly concerned and anxious.

Patients with acute schizophrenia obtain rapid, and at times spectacular, symptomatic relief. Four of 11 patients in Table IV enjoyed complete remissions. Three relapsed after the drug was discontinued, although one re-integrated on an increased dose of chlorpromazine and has been able to stay at home on a maintenance dosage. Later the other three were treated successfully with coma insulin.

Our most encouraging results have occurred in chronic schizophrenics who were resistant to all psychiatric therapies, including psychotherapy, intensive shock therapy, or did not maintain improvement after prefrontal lobotomy. Table IV shows that of the 32 chronic schizophrenics, 27 had been given intensive insulin and electro-shock treatment while five had been lobotomized. After they were placed on the "Thorazine" program, 17 of the 27, or 63%, of the shock-treatment failures, improved sufficiently to be discharged home. All are still out of the hospital. Two of five lobotomy patients were improved spectacularly.

Factual case reports present the most graphic picture of the profound change in these chronic, and almost hopeless, schizophrenics.

Mrs. E. R., a 24 year old housewife, had the first schizophrenic break when 16 years of age. This and a second episode were terminated with shock treatment. She again became catatonic in October of 1953 and remained in a mute, resistive state despite two prolonged courses of insulin coma and a total of 76 electro-shocks, given in the interval prior to her admission to John Sealy Hospital on May 15, 1954. Chlorpromazine was first administered on June 1. Five days later she began to feed herself, and on the eighth day of drug therapy, she spoke for the first time. Improvement continued and on the twenty-sixth day after the drug was begun, she was discharged home. She is still in a remission but is taking 50 mg. of chlorpromazine 3 times daily.

Another patient, a 47 year old housewife, had

experienced repeated and progressively severe, schizophrenic episodes since the age of 20. Until the past year, shock therapy would provide remissions ranging from six months up to two years. She had been in the hospital since September, 1953 and no longer responded to shock or other therapies. A lobotomy had been proposed but was rejected by her family, who had more faith than we did. On July 17, 1954, after 10 months in the hospital, chlorpromazine was started. She became asymptomatic after two weeks and was transferred to an open floor unit. For the next two months she remained on a dosage of 200 mg. per day and was permitted to carry out an active schedule. The patient has been at home now for six weeks on a maintenance dose of 200 mg. per day and is able to manage her home.

Table V lists the number of patients treated in each category, the other types of therapy received in addition to chlorpromazine, and the results obtained. The related therapy received by the patients with organic brain syndromes was not psychotherapy, but intensive supportive measures as vitamins, vasodilators, et cetera. No specific comment is needed for the character disorders and the psychoneuroses.

The results of this study indicate that chlorpromazine, when used in conjunction with the shock therapies, enhances their effect. When chlorpromazine was used alone in the treatment of depressions (Table IV), the rate of improvement was 60%, but when used as an adjunctive to electro-shock, the improvement rate rose to 100% (Table V). The two manic patients listed in Table V recovered with five electro-shock each, instead of the anticipated 12-15 treatments usually required. Eighty-three per cent of the acute schizophrenias improved when chlorpromazine was administered in conjunction with insulin and/or electro-shock. Again, less shock treatment was required, which shortens the period of post-shock confusion and reduces the length of hospitalization.

A case in point, Mrs. A. K., was treated in 1950 and again in 1952, for acute paranoid episodes. The first one was terminated after 16 electro-shocks. The second attack responded slowly to a combined course of 19 insulin comas and 14 electro-shocks, given over an eight week period. Her third attack, in October, 1954, was very severe and custodial care was advised. While awaiting transfer to a state hospital, she was placed on our chlorpromazine routine. As soon as her blood pressure was stabilized (fifth day) electro-shock treatment was started. She attained a full remission after five treatments and was able to return home after only three weeks of hospitalization. As with the other chlorpromazine treated schizophrenics, she was dismissed on a daily maintenance dose of the drug.

The last item listed in Table V was placed there, to stress that intramuscular chlorpromazine will control insulin-induced furor states if administered at the time of each insulin injection. However, it does not prevent convulsions in hypoglycemia.

Summary and Conclusions

Chlorpromazine was administered to 149 neuropsychiatric patients in a hospital setting. It was desired to establish a flexible treatment routine and to decide which patients could be helped by the drug. The hypotensive effects were so marked in hypertensive and arteriosclerotic patients that they were kept in bed during parenteral administration. Patients over 70 were unable to tolerate even small doses of the drug. Allergic or toxic complications were severe enough that the drug was discontinued in 12.7% of the cases.

Anxiety, agitation, restlessness, and hostile feelings, were effectively relieved by chlorpromazine in those patients who could tolerate the drug. Even patients with alcoholism, addiction, and impulsive behavior were benefited to a degree that they are able to function more normally in their home situations. Individuals with severe acute anxiety were improved sufficiently to become accessible for psychotherapy. Patients with long standing obsessive compulsive states failed to improve.

When used as the primary treatment measure in cases of acute schizophrenia, mania, and endogenous depression, improvement occurred in over 50% of the patients. When chlorpromazine is given in conjunction with electro-shock therapy, less shock treatment is needed and the rapidity of improvement and the remission rate, is higher than would be expected from shock therapy alone. Of 27 chronic schizophrenics who were treatment failures with insulin and electro-shock, 63% improved enough to return home. Continued small daily doses of chlorpromazine; i.e., 100-200 mg. daily for an indefinite period, has been found to be necessary to prevent a relapse. Prolonged

followup of this group of patients, plus treatment of many more patients in each diagnostic category, is needed to determine the eventual place of chlorpromazine in the treatment of psychiatric patients.

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Establishment of A Treatment Unit for Alcoholics

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Since March, 1953, there has been a treatment unit exclusively for chronic alcoholics in the Charity Hospital at New Orleans. At the present time, this unit is functioning as an integral part of our general hospital and is incorporated into the undergraduate teaching program of L. S. U., Medical School. This was not accomplished without solution of many problems which, at the time, seemed almost insurmountable. Because I believe that these problems are not unique to our State, or to our hospital, it is thought that the experiences in establishing such a unit would be interesting to others.

The Louisiana Commission on Alcoholism is an official body established by legislative action with its members appointed by the Governor. It was set up some years ago to study the extent of chronic alcoholism in Louisiana and to take measures to eradicate this illness. At first it was largely fact-finding and educational. But with the appointment of some of the most able and aggressive AA's to its staff, it began to campaign vigorously for separate hospital facilities for alcoholics. Official sanction plus the dedicated crusading attitude of the AA proved to be a most formidable political combination and led to sizable funds being appropriated by the State Legislature for setting-up such a facility in Charity Hospital.

Read at a meeting of Southern Psychiatric Association, Oct. 3, 1954, Louisville, Ky.

When discussions began about the actual establishment of the unit, there was a lot of firm opposition from the concerned doctors, who felt that alcoholics were already being adequately treated in the medical and psychiatric sections, and that the commission might well try to dictate policy. There was considerable and realistic fear, too, that such a unit might deteriorate into a flop-house and would threaten the prestige of the hospital. The doctors also felt that this lay group had gone above their heads and that the latters' opinions had been entirely excluded in this medical program. There was, however, sufficient political pressure to override the opposition of the doctors and amidst an air of antagonism the unit was finally opened.

For a long time, it remained a hospital within a hospital, segregated in site and function from the rest of Charity. Doctors in private practice had to be employed part-time to treat the patients, and this caused a great deal of resentment among the house staff whose salaries were so low in comparison. The residents and internes also resented the added work involved in consultations and emergencies on an unapproved service. To make matters worse, there was a negative interest among the nurses and supervisors because the pay scale of our nurses was somewhat higher.

Now, in addition to our local problems, the AA's began asking for bed reservations for

their select cases, proceeded to destroy confidence in the unit by emphasizing that the AA was the sole answer for the alcoholics, and that the place existed only for sobering-up and correction of complications or incidental illnesses. They were ever present on the unit with their latest converts, and were not reluctant to make suggestions as to diagnosis and treatment. They came to feel that Charity had become an extension to their club rooms, and the police looked to us to take troublesome people off their hands.

The acting-out on all sides was considerable and discouraging. There was talk of abandoning the ten bed ward, and of building a 50-bed hospital staffed with foreign doctors, who might be more interested in alcoholism. This seemed a fantastic idea but it served to stimulate the attention of some doctors who found they could no longer look casually upon these activities.

Representatives of the house-staff, superintendent, unit staff, Alcoholic Commission and AA met several times. It was quite amazing that, at this crucial point, we should discover that we were not working at cross-purposes but both toward better patient care. We were able in time to arrive at definite policies and limits of responsibilities. As the conference progressed we all came to realize that the unit could not survive if it continued to function in isolation from the rest of the hospital, and that steps leading to acceptance and integration were necessary. There had to be some proof of the usefulness of this unit.

We began the campaign by getting the AA's to sublimate their interest in regular ward meetings and by getting them to talk of their experiences before our medical students. They soon were able to see the value of increasing the patients' confidence in our treatment. We assured them of our interest by giving short talks to the local AA groups and to improve our relationship with the house-staff, we employed a mature and respected resident and an externe on the unit. We perhaps give a little better care to the relatives and friends of the house-staff. We increased our prestige a little, too, by a small experimental project using Serpasil and Thorazine.

We gave several clinics on alcoholism and fortunately, just at the proper time, Dr. Strecker paid us a visit and devoted one of his clinics to the subject. We sent information bulletins around to the wards and admitting rooms inviting the staff to our rounds. Eventually, we started regular rounds with our medical students in their psychiatric block.

As time went on, we noticed definite improvement in the morale and a decided increase in interest among the residents and internes, but more so even among the private practitioners. There have even been some inquiries from out of State doctors who had heard of our facilities. The State of Texas recently sent a doctor down to study our set-up. Not long ago a doctor from South America came up to learn about our treatment. Shortly before the legislature met this year, Governor Kennon appointed a special committee to formulate plans for a State-wide alcoholic program and for its integration within the Louisiana Mental Health Campaign.

There seem to be a number of lessons to be learned from our mistakes. Although the lay group sometimes was guilty of impulsive behavior, we were at fault in rejecting them without giving leadership and proper guidance to their activities. Both sides, for a long time, failed to recognize that each had something of definite value to contribute toward a common goal. We learned the hard way that a successful program for alcoholics meant integrating treatment with a statewide program for mental health, care, training and research, and that isolation of facilities spelled failure.

There is a general trend nowadays toward state or lay group subsidies in treatment of chronic illnesses. This, whether we like it or not, it behooves us in the interest of better public relations to participate and lead in these movements, to unite the splinter groups, rather than to jump on the wagon after it has started rolling. Above all, and I quote from a successful AA, let us never forget that apart from the love of a mother, there is no love like the love of one drunk for another.

Can One Live in Peace with Psychic Masochists?

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Every man has a sane spot somewhere.
ROBERT LOUIS STEVENSON.

Homo masochisticus is the most unbelievable of characters, either in life or fiction, for his neurotic actions violate the basic tenet of conscious existence—self-interest. People who *unconsciously* look for and enjoy defeat, humiliation, rejection, pain, are difficult to fathom. The average person circumvents the difficulty by denying that such people exist in the first place.

As soon as one accepts the fact that the psychic masochist is not a figment of psychoanalytic imagination, but is a real person, one comes face to face with a practical question: How is one to spot the "unbelievable," and how is one to deal with him after he has been identified?

The formula for detecting a psychic masochist is simple enough. It is a modification of the general formula for uncovering the neurotic: "Where logic ends, the unconscious takes over." In the specific case of the psychic masochist, the accent is on *unconsciously provoked self-damage, coupled with chronic complaints and bellicosity of the injustice-collecting variety.* In other words, when one detects that a specific person manages the decisive parts of his professional, emotional and recreational lives in accordance with irrational and thus damaging principles, without being at all aware that he himself is engineering his conscious discontent, it is clear that this individual is a psychic masochist.

An ironic touch is included in the denial of the very existence of the *psychic* masochist, who *unconsciously* approves of pain and humiliation. His opposite number, with whom he is frequently confused, is the *perverted* masochist, who *consciously* approves of pain and humiliation. When a perverted masochist pays a whore a double fee for the privilege of receiving a beating from her, the average person takes it for granted that an understanding attitude is in order, even though he finds it impossible to understand what pleasure can be derived from such practices. With an ironic, "You cannot argue about predilections," he dismisses the problem. His ability to be "understanding" about it is based on his acceptance of sexual pleasure per se, which operates even though the technique of the pain-lover's sexual enjoyment seems peculiar to him. But if the problem of the psychic masochist is put before the average person, he will doubt that there can be such unconscious pleasure, and stoutly maintain that such people "simply don't exist."

This denial of the psychic masochist's sheer existence so consistently found in the allegedly detached observer does not arise merely from the non-acceptance of the unconscious; it is also a preventive mechanism —once more, unconscious. Psychic masochism is a universal human trait; the quantity, of course, varies from person to person. To avoid the inner danger, therefore, disbelief is chosen as the typical inner defense.

Still another difficulty in detecting the psychic masochist lies in the variety of manifestations and "types" which the psychic masochist presents. In my book, *The Superego* (Grune & Stratton, New York, 1952), I attempted a typology, arriving at the following subtypes:

The Injustice-Collecting Type. This is a person who at all times is potentially or actually enraged because he is the victim of some terrible wrong. He will provoke an actual—or if necessary, a potential enemy until he succeeds in getting his badly needed dose of injustice. Between doses, he will accept as substitute a diet of impersonal, universal, injustice. Since the world is what it is, the injustice collector is in no danger of remaining unsatisfied. This type is characterized by an air of hyper-excitement, hypertouchiness, hyper-bellicosity.

The Coldly Detached Type. Phenomenologically, he seems to represent the opposite

of the injustice collector. He is an icicle personified—distant, cold, unmoved, frequently so taciturn that he is classed with the "he gives me the creeps" variety. His presence makes other people uncomfortable. His pose is that of a visitor from another planet. He pays no compliments, and is never guilty of making a moderately friendly-laudatory remark. Inwardly, of course, he is the same erupting volcano as his brother under the skin, the clearly visible injustice collector.

The "Nice" Masochist. It is stretching the truth only slightly to call these people the only "nice" human beings. They are interested in your troubles, and eager to be helpful. They excel in "magic gestures." Under this ingratiating surface is a hopelessly entangled masochist, suffering for reasons which he cannot understand (his construction of the unhappy situation). In general, this type accepts his conscious unhappiness with stoicism and resignation. It is hopeless to try to help these people with common-sense advice. Their inexhaustible stock of rationalizations assures the permanence of their painful situation.

If they are women, the epitheton ornans "charming" is often applicable. In clinical analysis, these "nice" and "charming" masochists present specific difficulties: they use these qualities as a defense, which is sometimes impenetrable. They also claim that the mechanism of psychic masochism does not apply to them, since they do not show the typical pseudo-aggressive defense of the psychic masochist. In inner reality, they do make use of this defense; evidence of its presence can easily be found in their dreams and conflicts. Practically speaking, this 'charm" means that the analyst must perform an additional task; he must uncover that hidden pseudo-aggression. Once this is done—and it may take months—a secondary difficulty arises. These patients consider their newly-retrieved pseudo-aggression a great step forward.

The next step in analysis is to prove that these pseudo-aggressions are self-damaging, too. The "charming" psychic masochist's failure to build up the typical defense of pseudo-aggression has made him a "nicer" person, but no less of a masochist.

The Every-Day Type. It might be more precise to designate this masochist "the unsuspected type." One meets an energetic business man, full of ideas and initiative; his private life, surprisingly enough, reveals him as the self-created victim of a shrewish wife. One meets a woman with the proverbial "calculating machine instead of a heart," a woman whose behavior seems to indicate that she has no "feelings" whatever; actually, she tortures herself with envy, the wrong boy friends, and other injustices.

The "Heaping-Coals-of-Fire-upon-His-Head" Technique (Self-Creation of an Artificial Victim Through Silence). One of the masochistic techniques merits special attention, not because of its frequency, but because it is an example of the depth to which the inner scourge can penetrate. This is the *silence* with which some masochists prefer to meet reproaches. Instead of defending themselves, they choose to be unjustly accused. Allegedly, they look forward to the malefactor's tearful acknowledgment of his injustice and cruelty. Many of these injustices, it goes without saying, are unconsciously provoked by the victim. The procedure could be called self-creation of an artificial victim.

*

Assuming that a psychic masochist has been spotted, what next? Can one live in peace with him?

Since the psychic masochist is not aware of his peculiar "pleasure-in-displeasure" pattern, and is constantly attacked by his inner conscience—which begrudges him this peculiar pleasure—he is under steady pressure to provide an inner alibi. This inner alibi consists of proving that he is but the innocent victim of outside malice, against which he fights with all his power. This fight—"pseudo-aggression" — is superficially the guiding pattern of the psychic masochist's existence.

The inevitable result is that the moment one deals with a psychic masochist—for whom the prime purpose of the outsider is to serve as standard bearer for an army of injustice providers—one is bound to be con-

fronted with an accusing and offended partner. The outsider, not realizing that he has simply been drawn into the neurotic circle of the masochist's past, considers him to be an over-touchy person who seemingly takes offense where others do not.

To adduce a clinical and a literary example:

A young writer consulted me because of his writer's block. He had written a successful comedy and achieved great financial success, but in attempting to write his second play he found himself completely blocked. Discussing the problem with him, I told him of a comedy-writer of the hack variety, a previous patient, who had developed into a serious writer. The new patient immediately pounced, claiming that I had stigmatized him, the writer of a comedy, as a not serious writer. I objected, pointing out that he had misunderstood my example, obviously by projecting his own reproaches of conscience. My objection, I told him, has not been directed against comedies, which are a worthy form of literary expression, but against the attitude of the previous patient, who had viewed everything from the angle of success. To prove my point, I gave the young man a paper, just in process of publication,* which described the problem in camouflaged form.

The immediacy of reaction here was typical. The man had seized the opportunity to push me into the sought-for situation—I "offended" him. It was injustice-collecting on the conveyer belt.

As literary example, I am quoting a passage from André Maurois' "Proust," where an identical attitude (though Maurois shows no understanding of the interconnections) is depicted:

"One sometimes wounded him (Proust) without meaning to," said Lauris. "The real truth about him was that he had no belief in his fellow men, and was forever detecting non-existent reserves and coldnesses. Heaven knows what he read between the lines! . . ." Reproaches would arrive in writing. One might have parted from him at two o'clock in the morning, and, on waking, find beside one's plate at breakfast a thick envelope, delivered by hand, containing a letter in which he analyzed with pitiless lucidity everything one had said—and left unsaid. The invalidish life which he led, his "interminable nights of sleeplessness," gave him every opportunity to apply his powers of imagination to disentangling the motives of his own behavior as well as those of his friends and intimates; and this bred in him that genius for suspicion to which all who knew him have drawn attention (p. 77).*

*

The innocent outsider's attempts to straighten out the "misunderstanding" are of little avail; the next occasion produces an even greater "offense." Since the motivating force is not personal malice, but an ever renewed inner necessity, the "erupting volcano" produces endlessly.

Obviously, the outsider confronted with such a fellow has no inkling of the existence of psychic masochism. He recognizes the size of the chip on the fellow's shoulder and tries to avoid conflicts. In this, he is wholly unsuccessful, because of the masochist's inner conflicts. For, in order to prove that there has been a slight, the masochist's next provocation or misunderstanding must always be greater than its predecessor. The "sane spot" to which Robert Louis Stevenson alludes is indubitably there but cannot be reached.

So far, no method short of analytic treatment has been devised, whereby one can "live in peace" with a psychic masochist. Since only a small number of people can be treated psychiatrically, the problem cannot be solved, unless avoidance of these peculiar contemporaries can be called a solution. And this, unfortunately, is not always possible.

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*"The Second Book and the Second Play." *The Psychoanalytic Review* (in press).

*For elaboration, see my study, "Proust and the 'Torture Theory' of Love," *The American Imago;* 265-288, 1954.

Book Reviews

TEXTBOOK OF MEDICINE. Edited by Sir John Conybeare, K.B.E., M.C., D.M., F.R.C.P., and W. N. Mann, M.D., F.R.C.P., Physicians to Guy's Hospital, London. Eleventh edition. Cloth. Pp. 905, illustrated by drawings and photographs, $8.00, Williams and Wilkins Co., Mount Royal and Guilford Aves., Baltimore 2, Maryland, 1954.

The present volume has passed through its eleventh edition and has stood the test of time. As a handbook encompassing within its boards what its various contributors have deemed timely, the book covers the essentials of medicine without overburdening the text with such minutiae as are usually discussed in the more exhaustive systems.

Of necessity, in keeping with the requirement of paging, the planning of the index has had to keep apace with the book's format and thus is effectively concise. As a random sampling of the book's condensation, a few features may be indicated. Under its recognized diagnostic term, as such, I have thus been unable to find the syndrome of Guillain-Barre, though the subject of polyneuritis has been ably described in the neurological section. Neither within the section on poisonings and intoxications, nor in the index, do I note reference to Marihuana intoxication or its treatment. Thereat, the problem of alcoholism is vigorously though succinctly dealt with, but no reference as such, appears as to the occurrence of Wernicke's Syndrome—a rather frequent concomitant disorder of chronic alcoholism. No reference within the index nor description of Porphyria as a metabolic pathologic process, appears within the text.

Albeit the spatial conservation, the scientific material is accurately written and is authoritatively in keeping with the most recent clinical developments without the burden of cumbersome details. Because of its convenience in handling and because of the roster of distinguished men who have been this dition's contributors and the quality of their production, the book should prove to be a popular adjunct to the armamentarium of the general medical practitioner as well as the specialist.

FUNDAMENTALS OF PSYCHOANALYTIC TECHNIQUE. By Trygve Braatoy, M.D., Late Head of the Psychiatric Department Ulleval General Hospital, Oslo, Norway. Cloth. Pp. 404, $6.00, John Wiley & Sons, Inc., 440 Fourth Avenue, New York 6, N. Y., 1954.

The author postulates that basic ability for psychoanalysis (which he calls "personal" psychotherapy), calls for capacity to conform to, and constanly modify the therapeutic approach to the patient's needs, and that such quality is founded on the therapist's love for, and ability to identify with the patient. In a resourceful manner, and adequately exemplified by appropriate case material, he discusses and compares the differences in clinical perspective and selection of technique between the methodology based on Freud's multiplefactor psychoanalytic approach and Horney's point of view, which letter stresses the symptomatic and sociologic approach, where, in indicated situations, it may be adequately used as therapy on a superficial level. In good scientific tradition, and concurred in by this reviewer, the author stresses the systematized development in medicine as being intimately dependent on institutions and teamwork. Yet, and again I concur with the author, he ably points out that in relation to "social and moral allergies," institutions and teams have serious drawbacks as compared with the set-up in the independent psychoanalyst's office where psychological "allergies" or other reactions may, because of the privacy of the setting, be cleaned of the specific irritants to a far greater extent.

The diagnostic approach as well as indications for and interpretations of psychoanalytic techniques, both from the physiologic and biologic viewpoints, are all exhaustively presented and methodically appraised as to their selective therapeutic effectiveness.

The book is stimulating, reflects the author's extensive experience, eruditeness, and interpretative faculty, and should be of great value not only to those physicians who are psychoanalytic candidates, but may be consulted with singular profit by the seasoned psychiatrist.

NEUROLOGY. By S. A. Kinnier Wilson, M.A., M.D., D.Sc. (Edin.), F.R.C.P., Edited by A. Ninian Bruce, F.R.C.P. (Edin.), D.Sc. (Edin.), M.D., F.R.S. (Edin.), Lt.-Col. R.A.M.C. Cloth. 3 volumes. Pp. 2060, with illustrations. $37.50, Williams & Wilkins, Mt. Royal and Guilford Avenues, Baltimore 2, Maryland, 1955.

This second edition of an already well accepted work is replete with the most recent significant neurological advances. Fundamental factors in the field of neurology are thoroughly presented, current diagnostic methodology receives detailed handling, and the text material is encyclopedic in its arrangement. The morbid anatomy as well as the clinical pathology represents dependably correlated treatment throughout the text, and is further highlighted by the practical inclusion of modern treatment concepts, most recent drugs and their therapeutic application in present day procedures.

The text is generously illustrated by excellent photographs, tables, and graphs, and is further enhanced by a complete list of all references mentioned in each chapter.

The book is exhaustive in its field and its contents

—contained within three volumes—is well adapted to the service of teaching as well as an authoritative reference source for the resident and practitioner.

CLINICAL PSYCHIATRY. By W. Mayer-Gross, M.D., (Heidelberg), F.R.C.P. (London), Eliot Slater, M.D. (Camb.), F.R.C.P. (London), D.P.M., and Martin Roth, M.D. (London), M.R.C.P. (London). Cloth. Pp. 652. $10.00, Williams and Wilkins, Mt. Royal and Guilford Avenues, Baltimore 2, Maryland, 1955.

The book aims to present a systematic formulation of the more important general concepts upon which are based specific methodologies in their clinical application. The authors feel, and this reviewer justifiably concurs, that psychiatry's province is the study of mental illness which should be unencumbered by emphasis upon what patterns of behavior may be gleaned from such divers branches of human knowledge as sociology, psychology, anthropology and related studies. Sufficient medical evidence abounds to indicate that much the greater share of psychiatric disorders reflect constitutional and physiopathological factors which cannot be ignored. On the whole, the influence of environment and cultural patterning upon mental illness has been considerably overplayed and subjected to speculation rather than to investigative precision. An isolated personal history will not serve to scientifically distinguish between a chance situation and the true causal relation of some particular condition. Scientific progress can not continue where individual phenomena are regarded as unique, but will only flourish where their similarities (which though they may variously differ) become recognized as a member of a class of similar phenomena. A schizophrenic may differ from another almost as much as normal people, as a class, may differ from one another. However, classification of differences into clinical types serves as a helpful guide in prognosticating and treating the individual illness. With authoritative emphasis we are further admonished that while standards of living and of nutrition may play a decisive role in the incidence of such illnesses as tuberculosis, we can but hypothesize about influences exerted by patterns of social life upon the mental health of individuals. Because of the precariousness of such speculation the psychiatric clinician ought to rely upon information gleaned from individual patient-study, and only rate the sociological causes of mental illness at their merited level of importance—which will be low in the psychoses and relatively higher in the neuroses.

Anent the controversial position, the authors point out with due effectiveness, that while some of the concepts, techniques, and observations coming from psychological disciplines have their importance in psychiatry, it would nevertheless be illogical to hold that psychology is to psychiatry what physiology is to medicine. Such a claim would not only be an exaggeration, but would also imply that psychiatry and medicine are but divergently related sciences. The psychologist of the team, in his field of testing the cognitive abilities, scholastic endowment, as well as intelligence of the patient, can contribute valuable clues toward the patient's total assessment and treatment planning. However, the tendency shown by some psychologists to take over the functions of a doctor and to engage in individual therapy is to be deplored. The spychiatrist's concern is with what is happening in the bodily field, and to seek out the most direct contacts with physiology and medicine. His primary interest as a clinician being the morbidity of mental states, his efforts toward the field of new pathological explorations require unremitting concentration however much is known about the psychology of the normal individual.

The book departs somewhat from the works of authors whose texts stress particular points of view. It holds that these various schools of thought as Freudian psychopathology, Meyer's psychobiology, a disproportionate amount of attention and resul-Masserman's dynamic psychiatry and others, receive tantly convey no true impression of present-day clinical psychiatry.

The present publication gives liberal space to a discussion of the general concepts and theories in their context and within the special aspects to which applied, so that their relevance as well as their limitations become apparent in the clinical consideration of phychic dysfunction.

The book is very liberally documented and carries an overly-generous index—a desideratum of any printed work, especially when functioning as a tevt. The book is well-authored, and should equally serve the practitioner as well as the psychiatric consultant as an instructive reference treatise.

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